

INFORMATION

How Can We Prevent Premature Birth?

Report of a Conference

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OF APPROXIMATELY 250,000 births each year in the state of California roughly 20,000 are classified as premature (the infants weigh less than 5 pounds 8 ounces). Whereas 99 out of every 100 full-term babies survive the first month after delivery, only 75 of 100 premature infants are alive at the end of that time. Every year, then, in this state about 5,000 premature infants die. Were they carried to term, it might be expected that fewer than 500 would die. Obviously, this yearly loss of about 4,500 infants is a tremendous and tragic waste of human life. Can anything be done about it?

During the month of May 1952, a conference (divided into Northern and Southern California sections) was held for the purpose of examining this question. At first glance there would seem to be nothing unusual or newsworthy about such a meeting. For years obstetricians, pediatricians, general practitioners, experts in public health and others, have met together to discuss the problem of the premature infant. And it cannot be denied that increasingly skillful care of the newborn child, whether full-term or premature, has contributed a major share to the steadily falling neonatal death rate. In 1920 this rate, for all live-births, was 36.2 per thousand; in 1950 it was 18.4 per thousand. But as the rate has fallen the factor of prematurity as a cause of death has become, relatively, larger until today prematurity (with or without other complications) is considered to play a part in about 60 per cent of all neonatal deaths.

So it is significant that on May 14 to 16, 1952, at Asilomar, Calif. (and on May 19 to 21, 1952, at Arrowhead Springs, Calif.), there was held—for the first time anywhere in the world so far as is known—a conference dealing specifically with the topic of the *prevention* of prematurity.

The broad scope of the problem was evidenced by the breadth of representation at the conference. There were obstetricians and pediatricians, both practicing and academic, as well as general practitioners engaged in obstetric and pediatric practice. The schools of medicine and of nursing of this state

sent staff members. Professors from the university schools of public health were present, as were biostatisticians, nutritionists, and health education specialists. Inasmuch as organization and management of the conference was accomplished by the State Department of Public Health, and primarily by the Bureau of Maternal and Child Health, representation from various public health services was very complete—members of the state department, local health officers, public health nurses, social service workers, county hospital superintendents. An attempt was made to attack the problem by a coordinated assault by all services and activities in any way concerned with the premature infant.

The basic presentation for the conference (both northern and southern sections) was made by Dr. Nicholson J. Eastman, professor of obstetrics at the Johns Hopkins University School of Medicine. His was the task of outlining present knowledge of the causes of premature delivery. Drawing upon statistics from various communities as well as from his own institution, he divided the etiologic factors into three principal groups:

1. Multiple pregnancy (about 12 per cent of all prematures).
2. Premature delivery involving operative termination of pregnancy (about 13 per cent).
3. Premature delivery occurring spontaneously (about 74 per cent).

Under these headings the various complications of pregnancy capable of producing premature delivery were touched upon.

It is emphasized, however, that only about 50 per cent of premature births are associated with antepartum medical complication, and that even then the causal relationship is often uncertain. A consideration of possible etiologic factors operative in the other 50 per cent of premature deliveries served to emphasize the huge gaps in present understanding of premature labor; and it made clear how essential, in any program designed to prevent prematurity, would be a continuous gathering and correlating of physiological and statistical research data. It also led to considerable discussion of factors suspected of being (but not yet proven to be) etiologic in a large percentage of "idiopathic" premature births, notably nutrition, fatigue, economic status, and psychogenic factors—factors, incidentally, which are especially susceptible of correction by measures in the field of public health.

Following this authoritative outline of the present medical status of the problem, the meeting became a "working conference." The participants were divided into small groups, each of which discussed informally and intensively over a two-day period particular aspects of how to prevent prematurity. The method proved to be a most stimulating, informa-

tive, and productive one. Much more extensive reporting of the conference's conclusions than can be included here appears in the June 30, 1952, issue of *California's Health*, the official bulletin of the California State Department of Public Health. The report reflects the earnestness, enthusiasm and ingenuity which the conference members brought to this initial attack on the problem of preventing prematurity.

The discussions revolved about how to implement three principal projects, namely, what can be done and who should be primarily responsible for:

1. Determining needs, correlating modern knowledge and research findings, and measuring progress in the prevention of prematurity.

2. Promoting educational programs for the public, for physicians, for public health workers, and others, aimed at this special goal.

3. Extending and improving prenatal care and services with this specific aim in view.

Obviously any program designed to prevent prematurity will call to its aid workers in all the professional fields already mentioned. Its scope encompasses all those specialties and more. Its success demands extensive, organized, willing cooperation. If it were possible by this means to reduce the present national incidence of prematurity, now about 7 per cent, by a single per cent, literally thousands of infant lives would be saved each year in this country. Clearly, it is worth while to try.